



NTP Nonneoplastic Lesion Atlas

Harderian Gland - Dilation

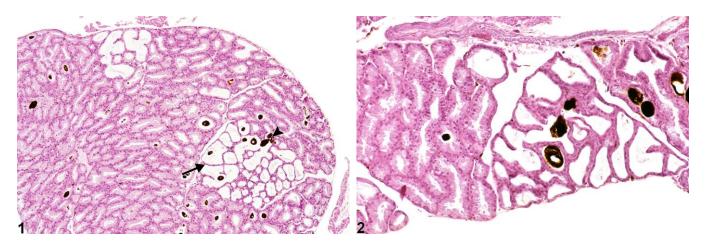


Figure Legend: Figure 1 Harderian gland - Dilatation in a male B6C3F1 mouse from a chronic study. There are focal clusters of alveoli with dilated lumens lined by slightly flattened epithelial cells (arrow) some of which contain intraluminal porphyrin-pigment (arrowhead). **Figure 2** Harderian gland - Dilation in a female B6C3F1 mouse from a chronic study. There is little interstitial fibrosis separating the dilated acini.

Comment: Harderian gland dilation is characterized by focal clusters of Harderian gland alveoli with dilated lumens lined by slightly flattened epithelial cells (Figure 1 and Figure 2); there is little if any associated interstitial fibrosis. Some dilated gland alveoli also exhibit intraluminal porphyrin pigment aggregates. Such dilatation is a common spontaneous finding in the Harderian glands of rats and mice but can also be induced by administration of various chemical agents.

Recommendation: Harderian gland dilation should be diagnosed only if there are treatment-related differences in incidence and/or severity. When diagnosed, it should be assigned a severity grade. The associated porphyrin pigment should not be diagnosed separately (unless warranted by severity), but should be described in the pathology narrative.

References:

Botts S, Jokinen M, Gaillard ET, Elwell MR, Mann PC. 1999. Salivary, Harderian, and lacrimal glands. In: Pathology of the Mouse: Reference and Atlas (Maronpot RR, Boorman GA, Gaul BW, eds). Cache River Press, Vienna, IL, 49-79.

Abstract: http://www.cacheriverpress.com/books/pathmouse.htm



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References:

Iwai H, Tagawa Y, Hayasaka I, Hayasaka I, Yanai T, Masegi T. 2000. Effects of atropine sulfate on rat Harderian glands: Correlation between morphological changes and porphyrin levels. J Toxicol Sci 25:151-159.

Abstract: http://europepmc.org/abstract/MED/10987121

National Toxicology Program. 1993. NTP TR-402. Toxicology and Carcinogenesis Studies of Furan (CAS No. 110-00-9) in F344 Rats and $B6C3F_1$ Mice (Gavage Studies). NTP, Research Triangle Park, NC.

Abstract: http://ntp.niehs.nih.gov/go/12255

National Toxicology Program. 1999. NTP TR-469. Toxicology and Carcinogenesis Studies of AZT (CAS No. 30516-87-1) and AZT/ α -Interferon A/D in B6C3F₁ Mice (Gavage Studies). NTP, Research Triangle Park, NC.

Abstract: http://ntp.niehs.nih.gov/go/6082

Satoh Y, Ishikawa K, Oomori Y, Takede S, Ono K. 1992. Secretion mode of the Harderian gland of rats after stimulation by cholinergic secretagogues. Acta Anat 143:7-13.

Abstract: http://www.ncbi.nlm.nih.gov/pubmed/1350161

Yoshitomi K, Boorman GA. 1990. Eye and associated glands. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, CA, 239-260.

Abstract: http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563

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